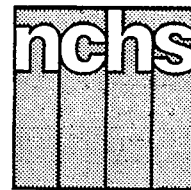


Advance Data



From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

National Ambulatory Medical Care Survey: 1991 Summary

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Introduction

During the 12-month period from January 1991 through December 1991, an estimated 669.7 million visits were made to nonfederally employed, office-based physicians in the United States—about 2.7 visits per person. This rate is not statistically different from office visit rates observed since 1975 (1,2,3).

This report presents data highlights from the 1991 National Ambulatory Medical Care Survey (NAMCS), a national probability sample survey conducted by the Division of Health Care Statistics of the National Center for Health Statistics, Centers for Disease Control and Prevention. The data summarized here should be considered provisional because final editing may result in minor changes in the estimates. Statistics are presented on patient, physician, and visit characteristics.

Because the estimates presented in this report are based on a sample rather than on the entire universe of office visits, they are subject to sampling variability. The technical

notes found at the end of this report include a brief overview of the sample design used in the 1991 NAMCS, an explanation of sampling errors, and guidelines for judging the precision of the estimates.

The Patient Record is used by physicians participating in the NAMCS to record information about their patients' office visits. This form is reproduced in figure 1 and is intended to serve as a reference for readers as they review the survey findings presented in this document.

The 1991 Patient Record included several questions that were new to the National Ambulatory Medical Care Survey. Through these data items, information was collected on whether the current office visit was injury related, whether the patient smoked cigarettes, and whether ambulatory surgery was scheduled or performed at the visit. In addition, revisions were made to some of the existing data items concerned with diagnostic, screening, and therapeutic services. These changes are discussed in detail below.

The physician sample for the NAMCS was selected with the cooperation of the American Medical Association and the American Osteopathic Association. Their contribution to this effort is gratefully acknowledged.

Patient characteristics

Office visits by patient's age, sex, and race are shown in table 1. Females made 59.8 percent of all office visits during 1991 and accounted for a higher percent of visits than males in all age categories except the youngest (under 15 years). Females also had significantly higher visit rates than males did in each age category with the exception of the youngest group (under 15 years) and the two oldest groups (65–74 years and 75 years and over). These patterns were also observed in the 1990 NAMCS.

Visit rates tended to increase with age after the age of 24. Persons 75 years of age and over had the highest visit rate of the six age categories analyzed, at 6.0 visits per



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics



Assurance of Confidentiality—All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to other persons or used for any other purpose.		Department of Health and Human Services Centers for Disease Control Public Health Service National Center for Health Statistics		D		
1. DATE OF VISIT ____/____/____ Month Day Year		PATIENT RECORD NATIONAL AMBULATORY MEDICAL CARE SURVEY				OMB No. 0920-0234 Expires 4-30-93 CDC 64.21D
2. DATE OF BIRTH ____/____/____ Month Day Year	4. COLOR OR RACE 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black 3 <input type="checkbox"/> Asian / Pacific Islander 4 <input type="checkbox"/> American Indian / Eskimo / Aleut	5. ETHNICITY 1 <input type="checkbox"/> Hispanic origin 2 <input type="checkbox"/> Not Hispanic	6. EXPECTED SOURCE(S) OF PAYMENT <i>[Check all that apply]</i> 1 <input type="checkbox"/> HMO/other prepaid 5 <input type="checkbox"/> Private / commercial 2 <input type="checkbox"/> Medicare 6 <input type="checkbox"/> Patient paid 3 <input type="checkbox"/> Medicaid 7 <input type="checkbox"/> No charge 4 <input type="checkbox"/> Other government 8 <input type="checkbox"/> Other		7. WAS PATIENT REFERRED FOR THIS VISIT BY ANOTHER PHYSICIAN? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	8. IS THIS VISIT INJURY RELATED? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No
3. SEX 1 <input type="checkbox"/> Female 2 <input type="checkbox"/> Male	10. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT <i>[In patient's own words]</i> a. Most important: _____ b. Other: _____ c. Other: _____		11. PHYSICIAN'S DIAGNOSES a. Principal diagnosis / problem associated with item 10.a: _____ b. Other: _____ c. Other: _____		12. HAVE YOU OR ANYONE IN YOUR PRACTICE SEEN PATIENT BEFORE? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No If yes, for the condition in item 11a? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No	9. DOES PATIENT SMOKE CIGARETTES? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown 13. DOES PATIENT NOW HAVE: <i>[Check all that apply regardless of any entry in item 11]</i> 1 <input type="checkbox"/> None of below 2 <input type="checkbox"/> Depression 3 <input type="checkbox"/> Hypertension 4 <input type="checkbox"/> Hypercholesterolemia 5 <input type="checkbox"/> Obesity
14. AMBULATORY SURGICAL PROCEDURE(S) <i>[Record any outpatient diagnostic or therapeutic procedure. For the first, check appropriate boxes.]</i> a. _____ 1 <input type="checkbox"/> Scheduled 3 <input type="checkbox"/> Local anesthesia 2 <input type="checkbox"/> Performed 4 <input type="checkbox"/> Regional anesthesia 5 <input type="checkbox"/> General anesthesia b. _____		15. DIAGNOSTIC / SCREENING SERVICES <i>[Check all ordered or provided]</i> 1 <input type="checkbox"/> None 11 <input type="checkbox"/> Pap test 2 <input type="checkbox"/> Blood pressure 12 <input type="checkbox"/> Strep throat test 3 <input type="checkbox"/> Urinalysis 13 <input type="checkbox"/> HIV serology 4 <input type="checkbox"/> EKG - resting 14 <input type="checkbox"/> Cholesterol measure 5 <input type="checkbox"/> EKG - exercise 15 <input type="checkbox"/> Other lab test 6 <input type="checkbox"/> Mammogram 16 <input type="checkbox"/> Hearing test 7 <input type="checkbox"/> Chest x-ray 17 <input type="checkbox"/> Visual acuity 8 <input type="checkbox"/> Other radiology 18 <input type="checkbox"/> Mental status exam 9 <input type="checkbox"/> Allergy testing 19 <input type="checkbox"/> Other <i>[Specify]</i> 10 <input type="checkbox"/> Spirometry		16. THERAPEUTIC SERVICES <i>[Check all ordered or provided. Exclude medication]</i> 1 <input type="checkbox"/> None 6 <input type="checkbox"/> Drug abuse COUNSELING / EDUCATION: 7 <input type="checkbox"/> Alcohol abuse 2 <input type="checkbox"/> Diet 8 <input type="checkbox"/> Smoking cessation 3 <input type="checkbox"/> Exercise 9 <input type="checkbox"/> Family / social 4 <input type="checkbox"/> Cholesterol reduction 10 <input type="checkbox"/> Growth / development 5 <input type="checkbox"/> Weight reduction 11 <input type="checkbox"/> Family planning 12 <input type="checkbox"/> Other counseling OTHER THERAPY: 13 <input type="checkbox"/> Psychotherapy 14 <input type="checkbox"/> Corrective lenses 15 <input type="checkbox"/> Hearing aid 16 <input type="checkbox"/> Physiotherapy 17 <input type="checkbox"/> Other therapy <i>[Specify]</i>		
17. MEDICATION <i>[Record all new or continued medications ordered or provided at this visit. Use the same brand name or generic name entered on any Rx or office medical record. Include immunizing and desensitizing agents.]</i> If none, check here <input type="checkbox"/> 1. _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> 2. _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3. _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> 4. _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/> 5. _____ 1 <input type="checkbox"/> 2 <input type="checkbox"/>		a. New medication? Yes No		18. DISPOSITION THIS VISIT <i>[Check all that apply]</i> 1 <input type="checkbox"/> No follow-up planned 2 <input type="checkbox"/> Return at specified time 3 <input type="checkbox"/> Return if needed, P.R.N. 4 <input type="checkbox"/> Telephone follow-up planned 5 <input type="checkbox"/> Referred to other physician 6 <input type="checkbox"/> Returned to referring physician 7 <input type="checkbox"/> Admit to hospital 8 <input type="checkbox"/> Other <i>[Specify]</i> _____		19. DURATION OF THIS VISIT <i>[Time actually spent with physician]</i> _____ Minutes

Figure 1. Patient record

person. The pattern, however, was found to be slightly different for males and females. Among males, rates increased with each age group after the age of 24, with males 75 years and over having the highest rate of 6.1 visits per person.

Females, despite a general trend toward increasing visit rates with age after the age of 24, showed no statistical difference in the rates for females aged 25–44 years compared with those aged 45–64 years, or in the rates for females aged 65–74 years

compared with those aged 75 years and over.

White persons made 87.8 percent of all office visits during 1991, with black persons and Asian/Pacific Islanders accounting for 8.7 percent and 3.0 percent, respectively. The percent of visits made by white persons was higher than that reported in 1990, but this is probably due to a change in the coding procedure. For survey years before 1989, unspecified responses to the race item were

randomly imputed a race designation. The 1989 and 1990 NAMCS included an “unspecified” category in the race item, which resulted in a significantly smaller proportion of visits by white persons than in previous survey years. The 1991 NAMCS reverted to the previous method of imputation of unspecified responses in order to maximize comparability across years of survey data. This method yielded a slightly higher proportion of visits by white

Table 1. Number, percent distribution, and annual rate of office visits by patient's age, sex, race, and geographic region: United States, 1991

<i>Patient characteristic</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>	<i>Number of visits per person per year¹</i>
All visits	669,689	100.0	2.7
Age			
Under 15 years	125,025	18.7	2.2
15-24 years	61,534	9.2	1.8
25-44 years	185,267	27.7	2.3
45-64 years	141,994	21.2	3.0
65-74 years	83,689	12.5	4.6
75 years and over	72,181	10.8	6.0
Sex and age			
Female	400,485	59.8	3.1
Under 15 years	60,157	9.0	2.2
15-24 years	40,447	6.0	2.3
25-44 years	122,449	18.3	3.0
45-64 years	83,210	12.4	3.4
65-74 years	49,475	7.4	4.9
75 years and over	44,747	6.7	5.9
Male	269,205	40.2	2.2
Under 15 years	64,868	9.7	2.3
15-24 years	21,088	3.1	1.2
25-44 years	62,818	9.4	1.6
45-64 years	58,783	8.8	2.6
65-74 years	34,214	5.1	4.2
75 years and over	27,434	4.1	6.1
Race and age			
White	587,800	87.8	2.8
Under 15 years	103,174	15.4	2.3
15-24 years	54,099	8.1	2.0
25-44 years	161,071	24.1	2.4
45-64 years	125,363	18.7	3.1
65-74 years	76,306	11.4	4.7
75 years and over	67,787	10.1	6.2
Black	58,494	8.7	1.9
Under 15 years	16,377	2.4	1.9
15-24 years	5,213	0.8	1.0
25-44 years	17,198	2.6	1.8
45-64 years	11,660	1.7	2.4
65-74 years	4,682	0.7	2.9
75 years and over	3,364	0.5	3.5
All other races			
Asian/Pacific Islander	20,127	3.0	---
American Indian/Eskimo/Aleut	3,269	0.5	---
Geographic region			
Northeast	154,869	23.1	3.1
Midwest	166,680	24.9	2.8
South	193,071	28.8	2.3
West	155,070	23.2	2.8

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1991.

persons compared with 1989 and 1990 data. However, visit rates by age, sex, and race were not statistically different from rates observed in the 1989 NAMCS.

Physician characteristics

The distribution of office visits according to physician specialty for the 13 most visited specialties is presented in table 2. The largest

share of visits (24.6 percent) was made to physicians specializing in general and family practice (GFP); this percentage, however, is significantly smaller than the one noted in 1990 (29.8 percent). A significant decrease was also seen in the visit rate to general and family practitioners, from 85.2 visits per 100 persons in 1990 to 66.3 visits per 100 person in 1991. Visit rates to each of the other 12 specialties were not

significantly different from 1990 visit rates. However, provisional data concerning these physician specialties for 1991 indicates increases in the proportion of visits made to internists, orthopedic surgeons, dermatologists, otolaryngologists, and urologists compared with 1990 figures, as well as a slight decrease in the proportion of visits made to psychiatrists. No significant differences were found in the proportion of visits to pediatricians, obstetricians and gynecologists, ophthalmologists, general surgeons, and neurologists.

A slightly higher proportion of visits were made to doctors of osteopathy in 1991 (7.0 percent) than in 1990 (5.6 percent). Osteopathic physicians received 18.8 visits per 100 persons during the year, compared with 250.5 visits per 100 persons to all other physicians.

Visit characteristics

Referral status and prior-visit status

In general, 6.2 percent of office visits in 1991 were made as the result of a referral from another physician, an increase from the 5.5 percent noted in 1990. The majority of office visits (83.3 percent) were made by patients who had seen the physician on a previous occasion, and more than half (61.8 percent) of all visits were made by persons who were returning to the physician for care of a previously treated problem (table 3). Only 16.7 percent of visits were made by new patients. These percents are not significantly different from those reported in 1990.

Expected source of payment

This item was revised slightly from the 1990 NAMCS, with the addition of the "private/commercial" and "other government" payment categories. "Private/commercial" replaces the former categories of commercial insurance and Blue Cross/Blue Shield from the 1990 NAMCS. Data on expected source of payment are shown in table 4.

Expected sources of payment were most often private/commercial

Table 2. Number, percent distribution, and annual rate of office visits by physician specialty and professional identity: United States, 1991

<i>Physician specialty</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>	<i>Number of visits per 100 persons per year¹</i>
All visits	669,689	100.0	269.3
General and family practice	164,857	24.6	66.3
Internal medicine	102,923	15.4	41.4
Pediatrics	74,646	11.1	30.0
Obstetrics and gynecology	56,834	8.5	22.9
Ophthalmology	41,207	6.2	16.6
Orthopedic surgery	35,932	5.4	14.4
Dermatology	29,659	4.4	11.9
General surgery	21,285	3.2	8.6
Otolaryngology	19,101	2.9	7.7
Psychiatry	15,720	2.3	6.3
Urological surgery	12,758	1.9	5.1
Cardiovascular diseases	11,629	1.7	4.7
Neurology	6,798	1.0	2.7
All other specialties	76,341	11.4	30.7
<i>Professional identity</i>			
Doctor of osteopathy	46,727	7.0	18.8
Doctor of medicine	622,962	93.0	250.5

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1991.

Table 3. Number and percent distribution of office visits by referral status and prior-visit status: United States, 1991

<i>Visit characteristic</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
All visits	669,689	100.0
<i>Referral status</i>		
Referred by another physician	41,598	6.2
Not referred by another physician	628,091	93.8
<i>Prior-visit status</i>		
New patient	111,801	16.7
Old patient	557,888	83.3
New problem	144,190	21.5
Old problem	413,698	61.8

Table 4. Number and percent distribution of office visits by patient's expected source of payment: United States, 1991

<i>Expected source of payment¹</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
All visits	669,689	100.0
Private/commercial insurance	239,425	35.8
Patient-paid	157,834	23.6
Medicare	141,679	21.2
HMO/other prepaid	100,983	15.1
Medicaid	63,411	9.5
Other government ²	14,409	2.2
No charge	10,437	1.6
Other	27,390	4.1
Unknown	13,828	2.1

¹Number may exceed total number of visits because more than one source of payment may be coded for each visit.

²Category is new on the 1991 National Ambulatory Medical Care Survey.

insurance (35.8 percent of visits) and patient-paid (23.6 percent). The patient-paid category includes the patient's contribution toward "co-payments" and "deductibles." Medicare was an expected payment source at 21.2 percent of visits overall, a significant increase from the 1990 level of 19.8 percent. For persons 65 years of age and over, Medicare was an expected source of payment at 80.6 percent of visits.

"HMO/other prepaid" was mentioned at 15.1 percent of visits, which was not significantly different from the 1990 level of 14.5 percent. An increase was noted in the percent of visits with Medicaid as an expected payment source, from 8.5 percent in 1990 to 9.5 percent in 1991. Readers should note that physicians were asked to check all of the applicable payment categories for this survey item, with the result that multiple payment sources could be coded for each visit.

Is this visit injury related?

The 1991 NAMCS included a new item on the Patient Record in which the physician was asked to record whether the visit was injury related. About 66.1 million visits, or 9.9 percent of all office visits, were injury related; more than half of these visits (55.3 percent) were made by males, and 41.1 percent were made by persons 25–44 years old. Males had a higher injury–visit rate than females did overall (30.3 visits per 100 males compared with 23.1 visits per 100 females), but these differences were evidenced only in the age groups 15–24 years and 25–44 years. Injury–visit rates for males and females in the age groups under 15, 45–64, 65–74, and 75 years and over were not found to differ significantly.

Among females, injury–visit rates were lowest for those in the age group under 15 years (11.4 visits per 100 females under age 15). Visit rates for the other age groups (15–24 years, 25–44 years, 45–64 years, 65–74 years, and 75 years and over) were higher than that of the youngest group, but were not significantly different from each other. For males, injury–visit

rates were not statistically different for the youngest and two oldest age groups (under 15, 65–74, and 75 years and over). Males 15–24 years, 25–44 years, and 45–64 years had higher injury visit rates (37.4, 39.7, and 33.7 visits per 100 males in each age group respectively), but these rates were not statistically different from each other. Injury-related office visits are described in terms of the patient's age and sex in table 5.

Does patient smoke cigarettes?

Another new item in the 1991 NAMCS collected data on whether the patient currently smokes cigarettes. Results from the survey showed that 10.1 percent of all office visits, or 67.7 million, were made by patients who smoke cigarettes. However, the patient's smoking status was not known for 27.7 percent of the total, or 185.2 million office visits. Data on visits according to patient's cigarette smoking status are presented in tables 6 and 7.

Reason for visit

Item 10 of the Patient Record asks the physician to record the patient's (or patient surrogate's) "complaint(s), symptom(s), or other reason(s) for this visit in the patient's own words." Up to three reasons for visit are classified and coded from the survey according to *A Reason for Visit Classification for Ambulatory Care (RVC)* (4). The principal reason for visit is the problem, complaint, or reason listed in item 9a.

The RVC is divided into the eight modules or groups of reasons displayed in table 8. More than half of all visits were made for reasons classified as symptoms (57.6 percent). Respiratory symptoms accounted for 11.5 percent of all visits, and musculoskeletal symptoms accounted for 11.4 percent.

The 20 most frequently mentioned principal reasons for visit, representing 38.2 percent of all visits, are shown in table 9. (It is important to note that the rank ordering presented in this and other tables in this report may not always be reliable

Table 5. Number, percent distribution, and annual rate of injury-related office visits by patient's age and sex: United States, 1991

Patient characteristic	Number of visits in thousands	Percent distribution	Number of visits per 100 persons per year ¹	Percent of all office visits ²
All injury-related visits	66,066	100.0	26.6	9.9
Age				
Under 15 years	7,417	11.2	13.3	1.1
15–24 years	10,510	15.9	30.4	1.6
25–44 years	27,126	41.1	33.4	4.1
45–64 years	14,222	21.5	30.2	2.1
65–74 years	3,955	6.0	21.6	0.6
75 years and over	2,836	4.3	23.7	0.4
Sex and age				
Female	29,544	44.7	23.1	4.4
Under 15 years	3,098	4.7	11.4	0.5
15–24 years	4,094	6.2	23.5	0.6
25–44 years	11,300	17.1	27.4	1.7
45–64 years	6,596	10.0	26.9	1.0
65–74 years	2,510	3.8	24.8	0.4
75 years and over	1,945	2.9	25.9	0.3
Male	36,522	55.3	30.3	5.5
Under 15 years	4,319	6.5	15.2	0.6
15–24 years	6,415	9.7	37.4	1.0
25–44 years	15,826	24.0	39.7	2.4
45–64 years	7,626	11.5	33.7	1.1
65–74 years	1,450	2.2	17.7	0.2
75 years and over	891	1.3	19.9	0.1

¹Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1, 1991.

²Based on an estimated total of 669,689,000 office visits in 1991.

Table 6. Number and percent distribution of office visits by patient's cigarette-smoking status: United States, 1991

Does patient smoke cigarettes?	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
Yes	67,674	10.1
No	416,771	62.2
Unknown	185,245	27.7
Patient characteristic		
All visits by patients who smoke cigarettes	67,674	100.0
Age		
Under 15 years	*237	*0.4
15–24 years	6,131	9.1
25–44 years	27,939	41.3
45–64 years	22,652	33.5
65–74 years	7,575	11.2
75 years and over	3,139	4.6
Sex		
Female	39,308	58.1
Male	28,366	41.9

because near estimates may not differ from each other due to sampling variability.) General medical examination was the most frequently mentioned reason for visit overall (4.4 percent of the total), while cough was the most frequently

mentioned reason having to do with illness or injury (3.6 percent).

Eighteen of the top 20 reasons for 1991 were also listed among the 20 most frequently mentioned reasons for 1990, albeit in slightly different order. The other two, depression and low back symptoms, each accounted

Table 7. Number and percent distribution of office visits by physician specialty, according to patient's cigarette-smoking status: United States, 1991

Physician specialty	Number of visits in thousands	Does patient smoke cigarettes?			
		Total	Yes	No	Don't know
			Percent distribution		
All visits	669,689	100.0	10.1	62.2	27.7
General and family practice . .	164,857	100.0	12.6	63.5	23.9
Internal medicine	102,923	100.0	13.3	63.3	23.4
Pediatrics	74,646	100.0	*0.4	96.8	2.8
Obstetrics and gynecology . .	56,834	100.0	11.8	61.9	26.3
Ophthalmology	41,207	100.0	6.6	43.0	50.4
Orthopedic surgery	35,932	100.0	9.2	38.8	52.0
Dermatology	29,659	100.0	4.2	33.0	62.8
General surgery	21,285	100.0	13.2	56.3	30.5
Otolaryngology	19,101	100.0	8.0	62.3	29.7
Psychiatry	15,720	100.0	16.1	59.6	24.3
Urological surgery	12,758	100.0	9.3	51.4	39.3
Cardiovascular diseases	11,629	100.0	8.2	61.7	30.1
Neurology	6,798	100.0	13.7	63.4	22.9
All other specialties	76,341	100.0	11.7	61.3	26.9

for about 7.1 million visits. Their higher position on the rank-listing for 1991 was due mainly to a small but significant decrease in the number of visits for hypertension and chest pain and related symptoms.

Diagnostic and screening services

Statistics on diagnostic and screening services ordered or provided by the physician during the office visit are displayed in table 10. The list of diagnostic and screening services appearing on the Patient Record is changed periodically to reflect the changing needs of data users, recommendations of advisors, and anticipated future health data needs. The 1991 NAMCS added a number of services that either had never appeared on the Patient Record or had not been included for several years. New categories for 1991 include the following: EKG - resting, EKG - exercise, allergy testing, spirometry, strep throat test, hearing test, and mental status exam. In addition, the former "other" category was expanded to permit greater specificity with the addition of the "other radiology" and "other lab test" categories.

More than half (64.8 percent) of all office visits included one or more diagnostic or screening service. The most frequently mentioned diagnostic

service was blood pressure check, recorded at 43.2 percent of visits. This percent was significantly higher than that recorded in 1990. (The 1990 percent was also higher than that found in 1989.) Also, blood pressure checks were ordered or provided at a higher percent of visits by females (47.9 percent) than visits by males (36.1 percent) in 1991, but the percents for both sexes showed an increase over 1990 figures.

Other frequently mentioned diagnostic and screening services included the new category of "other lab test" (17.1 percent of visits), urinalysis (12.7 percent), and visual acuity (6.0 percent). Pap tests were ordered or performed at 4.2 percent of visits, while cholesterol measures were taken at 4.0 percent of visits.

Also prominent among the new categories for 1991 were visits at which other radiology (that is, radiology other than chest x ray) was mentioned (5.5 percent), visits at which a resting EKG was ordered or provided (2.8 percent), and visits with a test for strep throat (2.0 percent).

Ambulatory surgical procedures

The 1991 NAMCS included a new item concerning ambulatory surgical procedures that were scheduled or performed at the current visit. Physicians were asked to

record up to two outpatient diagnostic or therapeutic procedures, and additional data were collected on the type of anesthesia used for the first-listed procedure. Preliminary results indicate that ambulatory surgical procedures were reported at 6.2 percent of all office visits—about 44.4 million procedures scheduled or performed. More detailed data on these procedures will be reported in a forthcoming publication.

Principal diagnosis

Item 11 of the Patient Record asks the physician to record the principal diagnosis or problem associated with the patient's most important reason for the current visit as well as any other significant current diagnoses. Up to three diagnoses are coded and classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* (5).

Displayed in table 11 are office visits by principal diagnosis using the major disease categories specified by the ICD-9-CM. The supplementary classification, used for diagnoses that are not classifiable to injury or illness (for example, general medical examination, routine prenatal examination, and health supervision of an infant or child), accounted for 15.1 percent of all office visits. Diseases of the respiratory system (13.8 percent) and diseases of the nervous system and sense organs (11.6 percent) were also prominent on the list.

The 20 most frequently reported principal diagnoses for 1991 are shown in table 12. These are categorized at the three-digit coding level of the ICD-9-CM, and account for 35.2 percent of all office visits made during the year. The most common diagnosis rendered by physicians at office visits in 1991 was essential hypertension, occurring at 3.5 percent of all visits. Essential hypertension has been the most frequently reported morbidity-related diagnosis in every survey year since the NAMCS began in 1973. (Morbidity-related diagnoses are

Table 8. Number and percent distribution of office visits by patient's principal reason for visit: United States, 1991

Principal reason for visit and RVC code ¹	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
Symptom moduleS001-S999	385,861	57.6
General symptomsS001-S099	44,230	6.6
Symptoms referable to psychological/mental disordersS100-S199	18,291	2.7
Symptoms referable to the nervous system (excluding sense organs)S200-S259	21,066	3.1
Symptoms referable to the cardiovascular/lymphatic systemS260-S299	3,417	0.5
Symptoms referable to the eyes and earsS300-S399	43,589	6.5
Symptoms referable to the respiratory systemS400-S499	76,764	11.5
Symptoms referable to the digestive systemS500-S639	27,074	4.0
Symptoms referable to the genitourinary systemS640-S829	31,265	4.7
Symptoms referable to the skin, hair, and nailsS830-S899	43,809	6.5
Symptoms referable to the musculoskeletal systemS900-S999	76,356	11.4
Disease moduleD001-D999	64,926	9.7
Diagnostic, screening, and preventive moduleX100-X599	101,002	15.1
Treatment moduleT100-T899	65,333	9.8
Injuries and adverse effects moduleJ001-J999	20,462	3.1
Test results moduleR100-R700	6,832	1.0
Administrative moduleA100-A140	7,122	1.1
Other ²U990-U999	18,150	2.7

¹Based on A Reason for Visit Classification for Ambulatory Care (RVC), (4).
²Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.

Table 9. Number and percent distribution of office visits by the 20 principal reasons for visit most frequently mentioned by patients: United States, 1991

Reason for visit and RVC code ¹	Number of visits in thousands	Percent distribution of visits		
		All visits	Female	Male
All visits	669,689	100.0	100.0	100.0
General medical examinationX100	29,720	4.4	4.8	3.9
CoughS440	24,263	3.6	3.6	3.7
Routine prenatal examinationX205	19,675	2.9	4.9	.
Symptoms referable to throatS455	17,882	2.7	2.7	2.6
Postoperative visitT205	16,308	2.4	2.3	2.7
Earache or ear infectionS355	13,404	2.0	1.9	2.1
Well baby examinationX105	13,276	2.0	1.7	2.4
Back symptomsS905	12,977	1.9	1.9	2.0
Skin rashS860	12,119	1.8	1.7	2.0
Stomach pain, cramps, and spasmsS545	11,106	1.7	1.8	1.4
FeverS010	10,318	1.5	1.5	2.1
Headache, pain in headS210	10,128	1.5	1.2	1.5
Vision dysfunctionsS305	10,011	1.5	1.5	1.5
Knee symptomsS925	9,522	1.4	1.2	1.7
Nasal congestionS400	8,444	1.3	1.1	1.5
Blood pressure testX320	7,645	1.1	1.2	1.1
Head cold, upper respiratory infection (coryza)S445	7,616	1.1	1.1	1.2
Neck symptomsS900	7,193	1.1	1.0	1.1
DepressionS110	7,060	1.1	1.2	0.9
Low back symptomsS910	7,051	1.1	0.8	1.4
All other reasons	413,971	61.8	60.9	63.2

¹Based on A Reason for Visit Classification for Ambulatory Care (RVC), (4).

those classifiable to illness or injury. Nonmorbidity-related diagnoses include routine prenatal examination, health supervision of an infant or child, and general medical examination, among others.)

Of the 20 diagnoses shown in table 12, 17 also appeared on the list of the 20 most frequent diagnoses for 1990. New on the list for 1991 were

contact dermatitis and other eczema, general symptoms, and special investigations and examinations. The latter is a diagnosis in the supplementary classification and includes routine examinations of specific systems, for example, gynecological, vision, and hearing exams. Dropping out of the top 20 from 1990 were osteoarthritis and

allied disorders, disorders of refraction and accommodation, and other forms of chronic ischemic heart disease.

In order to assess the significance of some of the changes in physicians' diagnoses over the years, visit rates for selected diagnoses from 1985-91 are compared in table 13. Between 1985 and 1991, increases were seen in office visit rates for chronic sinusitis and glaucoma, while decreases were noted in visit rates for disorders of refraction and accommodation and neurotic disorders. Slight decreases were also noted in visit rates for essential hypertension and normal pregnancy between 1985 and 1991. Additional years of data will help to put these apparent changes into better perspective.

Physicians' checklist of medical conditions

In addition to the diagnostic data reported in item 11 of the Patient Record, selected information on the patient's current health status was collected in item 13, another addition to the 1991 NAMCS. Physicians were given a list of four common conditions—depression, hypertension, hypercholesterolemia, and obesity—and asked to record whether the patient now had any of them, regardless of what was recorded as the current diagnosis in item 11 of the survey form. Results from item 13 are shown in tables 14 and 15.

Nearly one-quarter (24.1 percent) of the visits were made by patients who were reported to have one or more of the four conditions listed on the survey form. Hypertension was checked most frequently, at 12.7 percent of the total—about 85.3 million visits. This figure is substantially higher than the number of visits in which a first, second, or third diagnosis of essential hypertension (ICD-9-CM code 401) was reported in item 11 of the Patient Record (41.9 million visits or 6.3 percent of the total), and suggests

Table 10. Number and percent distribution of office visits by diagnostic and screening services and patient's sex: United States, 1991

Diagnostic and screening services ordered or provided by physician ¹	Number of visits in thousands	Percent distribution of visits		
		All visits	Female	Male
All visits	669,689	100.0	100.0	100.0
None	236,035	35.2	31.6	40.7
Blood pressure	289,153	43.2	47.9	36.1
Urinalysis	85,194	12.7	15.3	8.9
EKG - Resting ²	19,020	2.8	2.6	3.2
EKG - Exercise ²	2,661	0.4	0.2	0.7
Mammogram	11,558	1.7	2.9	...
Chest x ray	16,307	2.4	2.2	2.7
Other radiology ²	36,864	5.5	4.9	6.3
Allergy testing ²	1,445	0.2	0.2	0.3
Spirometry ²	2,486	0.4	0.3	0.4
Pap test	28,313	4.2	7.1	0.0
Strep throat test ²	13,650	2.0	2.0	2.1
HIV serology	1,362	0.2	0.2	0.2
Cholesterol measure	26,932	4.0	4.4	3.4
Other lab test ²	114,274	17.1	18.4	15.1
Hearing test ²	9,282	1.4	1.1	1.9
Visual acuity	40,374	6.0	5.6	6.7
Mental status exam ²	8,664	1.3	1.1	1.5
Other	67,757	10.1	10.6	9.4

¹Numbers may not add to totals because more than one service may be reported per visit.
²Category is new in the 1991 National Ambulatory Medical Care Survey.

Table 11. Number and percent distribution of office visits by principal diagnosis: United States, 1991

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
Infectious and parasitic diseases001-139	24,570	3.7
Neoplasms140-239	23,308	3.5
Endocrine, nutritional and metabolic diseases and immunity disorders240-279	27,312	4.1
Mental disorders290-319	26,167	3.9
Diseases of the nervous system and sense organs320-389	77,724	11.6
Diseases of the circulatory system390-459	50,226	7.5
Diseases of the respiratory system460-519	92,100	13.8
Diseases of the digestive system520-579	22,724	3.4
Diseases of the genitourinary system580-629	39,308	5.9
Diseases of the skin and subcutaneous tissue680-709	39,578	5.9
Diseases of the musculoskeletal system and connective tissue710-739	45,829	6.8
Symptoms, signs, and ill-defined conditions780-799	25,694	3.8
Injury and poisoning800-999	53,400	8.0
Supplementary classificationV01-V82	101,433	15.1
All other diagnoses ²	9,292	1.4
Unknown ³	11,025	1.6

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (5)*.
²Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-676); congenital anomalies (740-759); and certain conditions originating in the perinatal period (760-799).
³Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

the possibility that physicians tend to underreport chronic conditions in item 11.

Therapeutic services

Data on therapeutic services ordered or provided by the physician

at the office visit (item 16 on the Patient Record) are shown in table 16. This item underwent substantial revision in the 1991 NAMCS, with an expanded list of therapeutic categories permitting greater specificity in physicians' responses.

About one-third (33.1 percent) of all office visits included some form of counseling, education, or other nonmedication therapy. Diet education or counseling was mentioned most frequently, at 11.4 percent of the total, or 76.5 million visits. Other prominent categories included exercise (8.2 percent), drug abuse (3.8 percent), weight reduction (3.1 percent), and growth/development (3.1 percent).

Medication therapy

Data on medication therapy are shown in tables 17-21. Medication therapy was the most commonly mentioned therapeutic service in 1991, reported at 423.7 million office visits or 63.3 percent of the total (table 17). Physicians were instructed to record all new or continued medications ordered or provided at the visit, including prescription and nonprescription preparations, and immunizing and desensitizing agents. As used in the NAMCS, the term "drug" is interchangeable with the term "medication," and the term "prescribing" is used broadly to mean ordering or providing any medication, whether prescription or over-the-counter. Visits with one or more drug mentions are termed "drug visits" in the NAMCS. As many as five medications, or drug mentions, could be coded per drug visit, resulting in a total of 804.6 million drug mentions during 1991. This yields an average of 1.2 drug mentions per office visit, or 1.9 drug mentions per drug visit.

Data on number of drug visits and drug mentions by physician specialty are shown in table 18. Internists and cardiovascular disease specialists had the highest percentage of drug visits, at 81.6 percent and 80.4 percent, respectively.

Drug mentions are displayed by therapeutic class in table 19. This classification is based on the therapeutic categories used in the *National Drug Code Directory, 1985* edition (6). It should be noted that some drugs have more than one therapeutic application. In cases of

Table 12. Number and percent distribution of office visits by the 20 principal diagnoses most frequently rendered by physicians: United States, 1991

Principal diagnosis and ICD-9-CM code ¹	Number of visits in thousands	Percent distribution of visits		
		All visits	Female	Male
All visits	669,689	100.0	100.0	100.0
Essential hypertension401	23,188	3.5	3.6	3.3
Normal pregnancyV22	20,657	3.1	5.2	.
General medical examinationV70	18,321	2.7	2.6	3.0
Health supervision of infant or childV20	17,271	2.6	2.1	3.3
Acute upper respiratory infections of multiple or unspecified sites	16,928	2.5	2.4	2.7
Suppurative and unspecified otitis media382	16,185	2.4	2.1	3.0
Diabetes mellitus250	12,793	1.9	1.8	2.0
Chronic sinusitis473	11,570	1.7	1.8	1.7
Glaucoma365	11,043	1.6	1.7	1.6
Acute pharyngitis462	11,015	1.6	1.5	1.9
Bronchitis, not specified as acute or chronic490	9,757	1.5	1.6	1.2
Diseases of sebaceous glands706	9,464	1.4	1.5	1.4
Allergic rhinitis477	9,405	1.4	1.4	1.4
Asthma493	8,804	1.3	1.2	1.5
Cataract366	7,540	1.1	1.1	1.1
Contact dermatitis and other eczema692	7,048	1.1	1.0	1.1
Sprains and strains of other and unspecified parts of back847	6,381	1.0	0.9	1.1
Special investigations and examinationsV72	6,318	0.9	1.3	0.5
Neurotic disorders300	6,220	0.9	1.0	0.8
General symptoms780	6,101	0.9	0.9	1.0
All other diagnoses	433,680	64.8	63.3	66.4

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (5)*.

this type, each drug was assigned to the category for which it was most frequently prescribed.

Cardiovascular-renal drugs accounted for 15.5 percent of all drug mentions, while antimicrobial agents (14.9 percent), pain relief drugs (10.6 percent) and respiratory tract drugs (10.0 percent) were also prominent.

The 20 most frequently used generic substances for 1991 are shown in table 20. In this table, drug products containing more than one ingredient (combination products) are included in the data for each ingredient. For example, acetaminophen with codeine is included in both the count for acetaminophen and the count for codeine. Amoxicillin was the generic ingredient most frequently used in drugs ordered or provided by the physician at office visits in 1991 (as well as in 1990), occurring in 4.1 percent of drug mentions. Seventeen of the 20 most used generic ingredients for 1991 were also on the list of the top 20 for 1990.

The 20 medications most frequently ordered or supplied by physicians at office visits are shown by entry name of drug in table 21. Entry

name refers to the actual designation used by the physician on the Patient Record form and may be a trade name, a generic name, or simply a desired therapeutic effect. Amoxicillin was the medication most frequently prescribed by physicians, with 18.0 million mentions, or 2.2 percent of the total. It was followed by Amoxil (1.2 percent), Lasix (1.2 percent), and Ceclor (1.2 percent).

The NAMCS drug data base permits classification by a wide range of variables, including specific product name, generic class, entry form chosen by the physician (that is, brand name, generic name, or the desired therapeutic effect), prescription status (that is, whether the product is prescription or nonprescription), federally controlled substance status, composition status (that is, single- or multiple ingredient product), and therapeutic category. A report describing the method and instruments used to collect and process drug information for the NAMCS is available (7).

Disposition of visit

About two-thirds (66.7 percent) of all office visits included a

scheduled follow-up visit or telephone call, while another 21.6 percent included instructions to return if needed. Less than one percent of visits resulted in a hospital admission. These percentages are not statistically different than those reported in 1990. Data on office visit disposition are displayed in table 22.

Duration of visit

Data on the duration of office visits are presented in table 23. Duration of visit refers to the amount of time spent in face-to-face contact between the physician and the patient. This time is estimated and recorded by the physician and does not include time spent waiting to see the physician, time spent receiving care from someone other than the physician without the presence of the physician, or time spent by the physician in reviewing patient records and/or test results. In cases where the patient received care from a member of the physician's staff, but did not actually see the physician during the visit, duration was recorded as "zero" minutes.

More than two-thirds (68.3 percent) of office visits had a duration of 15 minutes or less in 1991. The mean duration time for all visits was 17.0 minutes. Corresponding numbers for 1990 were 69.3 percent and 16.7 minutes, respectively.

Additional reports that utilize 1991 NAMCS data are forthcoming in the Advance Data from Vital and Health Statistics series. In addition, survey data will be available on computer tape from the National Technical Information Service at a nominal cost beginning about June 1993. Questions regarding this report, future reports, or the NAMCS may be directed to the Ambulatory Care Statistics Branch by calling (301) 436-7132.

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Table 13. Number, percent distribution, and annual rate of office visits by selected principal diagnoses, according to year of survey: United States, 1985-91

Principal diagnosis and ICD-9-CM code ¹	1985	1989	1991
	Number of visits in thousands		
All visits	636,386	692,702	669,689
Essential hypertension401	26,049	27,708	23,188
Normal pregnancyV22	24,182	23,578	20,657
Health supervision of infant or childV20	17,088	15,669	17,271
Suppurative and unspecified otitis media382	15,607	20,033	16,185
General medical examinationV70	14,916	20,166	18,321
Acute upper respiratory infections of multiple or unspecified sites465	14,691	15,765	16,928
Diabetes mellitus250	12,302	13,237	12,793
Neurotic disorders300	9,320	8,511	6,220
Acute pharyngitis462	9,302	10,958	11,015
Disorders of refraction and accommodation367	8,268	7,686	5,420
Diseases of sebaceous glands706	8,104	8,146	9,464
Allergic rhinitis477	7,835	11,631	9,405
Bronchitis, not specified as acute or chronic490	7,563	11,160	9,757
Other forms of chronic ischemic heart disease414	6,732	5,712	5,713
Asthma493	6,503	6,822	8,804
Cataract366	6,285	6,335	7,540
Special investigations and examinationsV72	5,838	4,261	6,318
Contact dermatitis and other eczema692	5,837	6,542	7,048
Chronic sinusitis473	5,675	8,700	11,570
Osteoarthritis and allied disorders715	5,522	6,259	5,513
Sprains and strains of other and unspecified parts of back847	5,322	7,614	6,381
General symptoms780	4,874	5,550	6,101
Glaucoma365	4,304	4,952	11,043
	Percent distribution		
All visits	100.0	100.0	100.0
Essential hypertension401	4.1	4.0	3.5
Normal pregnancyV22	3.8	3.4	3.1
Health supervision of infant or childV20	2.7	2.3	2.6
Suppurative and unspecified otitis media382	2.5	2.9	2.4
General medical examinationV70	2.3	2.9	2.7
Acute upper respiratory infections of multiple or unspecified sites465	2.3	2.3	2.5
Diabetes mellitus250	1.9	1.9	1.9
Neurotic disorders300	1.5	1.2	0.9
Acute pharyngitis462	1.5	1.6	1.6
Disorders of refraction and accommodation367	1.3	1.1	0.8
Diseases of sebaceous glands706	1.3	1.2	1.4
Allergic rhinitis477	1.2	1.7	1.4
Bronchitis, not specified as acute or chronic490	1.2	1.6	1.5
Other forms of chronic ischemic heart disease414	1.1	0.8	0.9
Asthma493	1.0	1.0	1.3
Cataract366	1.0	0.9	1.1
Special investigations and examinationsV72	0.9	0.6	0.9
Contact dermatitis and other eczema692	0.9	0.9	1.1
Chronic sinusitis473	0.9	1.3	1.7
Osteoarthritis and allied disorders715	0.9	0.9	0.8
Sprains and strains of other and unspecified parts of back847	0.8	1.1	1.0
General symptoms780	0.8	0.8	0.9
Glaucoma365	0.7	0.7	1.6
	Number of visits per 100 persons ²		
All visits	274.1	284.4	269.3
Essential hypertension401	11.2	11.4	9.3
Normal pregnancyV22	10.4	9.7	8.3
Health supervision of infant or childV20	7.4	6.4	6.9
Suppurative and unspecified otitis media382	6.7	8.2	6.5
General medical examinationV70	6.4	8.3	7.4
Acute upper respiratory infections of multiple or unspecified sites465	6.3	6.5	6.8
Diabetes mellitus250	5.3	5.4	5.1
Neurotic disorders300	4.0	3.5	2.5
Acute pharyngitis462	4.0	4.5	4.4
Disorders of refraction and accommodation367	3.6	3.2	2.2
Diseases of sebaceous glands706	3.5	3.3	3.8
Allergic rhinitis477	3.4	4.8	3.8
Bronchitis, not specified as acute or chronic490	3.3	4.6	3.9
Other forms of chronic ischemic heart disease414	2.9	2.3	2.3
Asthma493	2.8	2.8	3.5
Cataract366	2.7	2.6	3.0
Special investigations and examinationsV72	2.5	1.7	2.5
Contact dermatitis and other eczema692	2.5	2.7	2.8
Chronic sinusitis473	2.4	3.6	4.7
Osteoarthritis and allied disorders715	2.4	2.6	2.2
Sprains and strains of other and unspecified parts of back847	2.3	3.1	2.6
General symptoms780	2.1	2.3	2.5
Glaucoma365	1.9	2.0	4.4

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (5)*.²Based on U.S. Bureau of the Census estimates of the civilian noninstitutionalized population of the United States as of July 1 of each year.

Table 14. Number and percent distribution of office visits by selected medical conditions, according to patient's age and sex: United States, 1991

Medical condition ¹	Patient's age							Patient's sex	
	All ages	Under 15 years	15-24 years	25-44 years	45-64 years	65-74 years	75 years and over	Male	Female
Number of visits in thousands									
All visits	669,689	125,025	61,534	185,267	141,994	83,689	72,181	269,205	400,485
Depression	40,712	1,276	1,863	14,794	12,915	5,735	4,130	12,955	27,757
Hypertension	85,266	*524	*559	9,007	27,215	23,989	23,972	32,624	52,642
Hypercholesterolemia	46,044	*217	*174	4,644	13,937	10,475	6,597	12,798	23,247
Obesity	52,961	1,567	2,653	15,897	18,808	9,134	4,903	15,196	37,765
None of the above	508,172	121,799	56,781	148,782	89,606	48,764	42,441	211,913	296,259
Percent distribution									
All visits	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Depression	6.1	1.0	3.0	8.0	9.1	6.9	5.7	4.8	6.9
Hypertension	12.7	*0.4	*0.9	4.9	19.2	28.7	33.2	12.1	13.1
Hypercholesterolemia	6.9	*0.2	*0.3	2.5	9.8	12.5	9.1	4.8	5.8
Obesity	7.9	1.3	4.3	8.6	13.2	10.9	6.8	5.6	9.4
None of the above	75.9	97.4	92.3	80.3	63.1	58.3	58.8	78.7	74.0

¹Numbers may not add to totals because patients may have more than one condition.

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Table 15. Number and percent distribution of office visits by selected medical conditions occurring singly and in clusters: United States, 1991

Medical condition	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
One of four conditions	119,445	17.8
Depression	29,380	4.4
Hypertension	50,676	7.6
Hypercholesterolemia	12,147	1.8
Obesity	27,242	4.1
Two of four conditions	31,867	4.8
Depression and hypertension	3,433	0.5
Depression and hypercholesterolemia	951	0.1
Depression and obesity	2,800	0.4
Hypertension and hypercholesterolemia	10,800	1.6
Hypertension and obesity	10,728	1.6
Hypercholesterolemia and obesity	3,155	0.5
Three of four conditions	9,016	1.3
Depression, hypertension, and hypercholesterolemia	1,169	0.2
Depression, hypertension, and obesity	1,213	0.2
Depression, hypercholesterolemia, and obesity	*576	*0.1
Hypertension, hypercholesterolemia, and obesity	6,058	0.9
All four conditions	1,190	0.2
Depression, hypertension, hypercholesterolemia, and obesity	1,190	0.2

Table 16. Number and percent distribution of office visits by therapeutic services: United States, 1991

<i>Therapeutic service ordered or provided by physician¹</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
All visits	669,689	100.0
None	448,044	66.9
Counseling/education		
Diet ²	76,476	11.4
Exercise ²	54,617	8.2
Cholesterol reduction	20,818	3.1
Weight reduction	25,761	3.8
Drug abuse ²	1,570	0.2
Alcohol abuse ²	3,187	0.5
Smoking cessation	13,013	1.9
Family/social ²	12,486	1.9
Growth/development ²	20,580	3.1
Family planning ²	5,456	0.8
Other counseling	55,911	8.3
Other therapy		
Psychotherapy	17,789	2.7
Corrective lenses	7,934	1.2
Hearing aid ²	*440	*0.0
Physiotherapy	16,763	2.5
Other therapy	21,235	3.2

¹Numbers may not add to totals because more than one category may be reported per visit.

²Category is new in the 1991 National Ambulatory Medical Care Survey.

Table 17. Number and percent distribution of office visits by medication therapy and number of medications ordered or provided by the physician: United States, 1991

<i>Medication therapy¹</i>	<i>Number of visits in thousands</i>	<i>Percent distribution</i>
All visits	669,689	100.0
Drug visits ²	423,675	63.3
Visits without mention of medication	246,014	36.7
Number of medications ordered or provided by physician		
None	246,014	36.7
One	217,786	32.5
Two	107,800	16.1
Three-Five	98,089	14.6

¹Medications include prescription drugs, over-the-counter preparation, immunizing agents, and desensitizing agents.

²Drug visits are visits at which one or more medication is ordered or supplied by the physician.

Table 18. Number and percent distribution of drug visits and drug mentions by physician specialty: United States, 1991

<i>Physician specialty</i>	<i>Number of drug visits in thousands¹</i>	<i>Percent distribution</i>	<i>Number of drug mentions in thousands</i>	<i>Percent distribution</i>	<i>Percent drug visits²</i>
All drug visits	423,675	100.0	804,615	100.0	63.3
General and family practice	119,003	28.1	222,158	27.6	72.2
Internal medicine	83,975	19.8	193,229	24.0	81.6
Pediatrics	51,903	12.3	81,746	10.2	69.5
Obstetrics and gynecology	27,106	6.4	35,507	4.4	47.7
Ophthalmology	19,125	4.5	32,259	4.0	46.4
Dermatology	16,979	4.0	31,609	3.9	57.2
Psychiatry	10,161	2.4	16,320	2.0	64.6
Cardiovascular diseases	9,350	2.2	30,029	3.7	80.4
Orthopedic surgery	9,309	2.2	12,115	1.5	25.9
Otolaryngology	8,744	2.1	12,405	1.5	45.8
General surgery	6,920	1.6	13,498	1.7	32.5
Urological surgery	5,093	1.2	6,616	0.8	39.9
Neurology	4,210	1.0	6,625	0.8	61.9
All other specialties	51,797	12.2	110,499	13.7	67.8

¹Drug visits are visits at which one or more drugs are ordered or supplied by the physician.

²Number of drug visits divided by number of office visits multiplied by 100.

Table 19. Number and percent distribution of drug mentions by therapeutic classification: United States, 1991

<i>Therapeutic classification¹</i>	<i>Number of drug mentions in thousands</i>	<i>Percent distribution</i>
All drug mentions	804,615	100.0
Cardiovascular-renal drugs	124,554	15.5
Antihypertensive agents	45,462	5.7
Diuretics	28,913	3.6
Antianginal agents	22,888	2.8
Cardiac glycosides	10,446	1.3
Antiarrhythmic agents	9,398	1.2
Agents used in peripheral or cerebral vascular disorders	4,308	0.5
Other	3,139	0.4
Antimicrobial agents	119,663	14.9
Penicillins	37,470	4.7
Cephalosporins	23,822	3.0
Erythromycins and lincosamides	19,801	2.5
Tetracyclines	10,374	1.3
Sulfonamides and trimethoprim	10,025	1.2
Urinary tract antiseptics	5,288	0.7
Miscellaneous antibacterial agents	4,463	0.6
Antiviral agents	3,307	0.4
Antifungal agents for systemic mycoses	2,878	0.4
Other	2,235	0.3
Drugs used for relief of pain	85,132	10.6
General analgesics	43,667	5.4
Antiarthritics	37,696	4.7
Drugs used in gout	2,988	0.4
Other	*780	*0.1
Respiratory tract drugs	80,758	10.0
Bronchodilators, antiasthmatics	24,992	3.1
Nasal decongestants	20,084	2.5
Antitussives, expectorants, mucolytics	18,323	2.3
Antihistamines	17,300	2.2
Other	*60	* < .1
Hormones and related agents	76,507	9.5
Adrenal corticosteroids	24,180	3.0
Blood glucose regulators	17,186	2.1
Estrogens and progestins	13,254	1.6
Agents used to treat thyroid disease	10,843	1.3
Contraceptive agents	8,516	1.1
Other	2,528	0.3
Psychopharmacologic drugs	49,588	6.2
Antidepressants	19,722	2.5
Antianxiety agents	16,209	2.0
Antipsychotic drugs	5,824	0.7
Sedatives and hypnotics	5,282	0.7
CNS stimulants, anorexiant	2,551	0.3
Skin/mucous membrane	43,912	5.5
Dermatologics	41,053	5.1
Other	2,859	0.4
Metabolic and nutrient agents	36,964	4.6
Vitamins, minerals	18,579	2.3
Replenishers and regulators of water and electrolytes	8,948	1.1
Agents used to treat hyperlipidemia	8,631	1.1
Other	*806	*0.1
Ophthalmic drugs	35,260	4.4
Ocular anti-infective and anti-inflammatory agents	14,726	1.8
Agents used to treat glaucoma	13,121	1.6
Miscellaneous ophthalmic preparations	5,521	0.7
Mydriatics and cycloplegics	1,892	0.2
Gastrointestinal agents	34,157	4.2
Agents used in disorders of upper GI tract	17,615	2.2
Miscellaneous gastrointestinal agents	9,707	1.2
Laxatives	3,737	0.5
Antidiarrheal agents	2,155	0.3
Other	*942	*0.1
Immunologic agents	28,440	3.5
Vaccines and antiserum	27,959	3.5
Other	*481	*0.1
Neurologic drugs	16,372	2.0
Hematologic agents	10,571	1.3
Other and unclassified ²	62,737	7.8

¹Therapeutic classification is based on the standard drug classification used in the *National Drug Code Directory*, 1985 Edition.

²Includes anesthetics, antidotes, radiopharmaceuticals/contrast media, oncology, otology, antiparasitics, and unclassified/miscellaneous drugs.

Table 20. Number and percent distribution of drug mentions for the 20 most frequently used generic substances: United States, 1991

Generic substance	Number of drug mentions in thousands ¹	Percent distribution	Therapeutic classification ²
All drug mentions	804,615	100.0	...
Amoxicillin	33,304	4.1	Penicillins
Acetaminophen	28,387	3.5	General analgesics
Erythromycin	16,060	2.0	Erythromycins and lincosamides
Hydrochlorothiazide	15,727	2.0	Diuretics
Aspirin	13,426	1.7	General analgesics
Ibuprofen	13,321	1.7	Antiarthritics
Phenylephrine	12,900	1.6	Nasal decongestants
Codeine	12,655	1.6	General analgesics
Phenylpropanolamine	11,734	1.5	Nasal decongestants
Albuterol	11,387	1.4	Bronchodilators, antiasthmatics
Digoxin	10,411	1.3	Cardiac glycosides
Naproxen	10,341	1.3	Antiarthritics
Guaiifenesin	10,281	1.3	Antitussives, expectorants, mucolytics
Furosemide	10,257	1.3	Diuretics
Vitamin A	10,169	1.3	Vitamins, minerals
Riboflavin	9,402	1.2	Vitamins, minerals
Trimethoprim	9,343	1.2	Sulfanomides and trimethoprim
Sulfamethoxazole	9,223	1.1	Sulfanomides and trimethoprim
Ergocalciferol	9,165	1.1	Vitamins, minerals
Cefaclor	8,791	1.1	Cephalosporins

¹Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.
²Therapeutic classification is based on the *National Drug Code Directory*, 1985 Edition (6). In cases where a drug had more than one therapeutic classification, it was listed in the category for which it was most frequently prescribed.

Table 21. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at office visits, by entry name of drug: United States, 1991

Entry name of drug ¹	Number of drug mentions in thousands	Percent distribution	Therapeutic classification ²
All drug mentions	804,615	100.0	...
Amoxicillin	18,017	2.2	Penicillins
Amoxil	9,653	1.2	Penicillins
Lasix	9,271	1.2	Diuretics
Ceclor	8,791	1.1	Cephalosporins
Allergy relief or shots	7,737	1.0	Diagnostics, nonradioactive and radiopaque
Prednisone	7,688	1.0	Adrenal corticosteroids
Synthroid	7,601	0.9	Agents used to treat thyroid disease
Lanoxin	7,566	0.9	Cardiac glycosides
Zantac	7,127	0.9	Agents used in disorders of upper GI tract
Motrin	7,033	0.9	Antiarthritics
Naprosyn	7,021	0.9	Antiarthritics
Diphtheria Tetanus Toxoids Pertussis	6,996	0.9	Vaccines and antisera
Premarin	6,879	0.9	Estrogens and progestins
Vasotec	6,632	0.8	Antihypertensive agents
Cardizem	6,516	0.8	Antianginal agents
Tylenol	6,330	0.8	General analgesics
Seldane	5,897	0.7	Antihistamines
Poliomyelitis vaccine	5,586	0.7	Vaccines and antisera
Proventil	5,478	0.7	Bronchodilators, antiasthmatics
Keflex	5,422	0.7	Cephalosporins

¹The entry made by the physician on the prescription or other medical records. This may be a trade name, generic name, or desired therapeutic effect.
²Therapeutic classification is based on the *National Drug Code Directory*, 1985 Edition (6). In cases where a drug had more than one therapeutic classification, it was listed in the category for which it was most frequently prescribed.

Table 22. Number and percent distribution of office visits by disposition of visit: United States, 1991

Disposition ¹	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
Return at specified time	423,785	63.3
Return if needed	144,693	21.6
No followup planned	63,538	9.5
Telephone followup planned	22,813	3.4
Referred to other physician	21,783	3.3
Admit to hospital	5,856	0.9
Returned to referring physician	5,594	0.8
Other	7,917	1.2

¹Numbers may not add to totals because more than one disposition may be reported per visit.

Table 23. Number and percent distribution of office visits by duration of visit: United States, 1991

Duration	Number of visits in thousands	Percent distribution
All visits	669,689	100.0
0 minutes ¹	8,469	1.3
1-5 minutes	59,584	8.9
6-10 minutes	177,511	26.5
11-15 minutes	211,340	31.6
16-30 minutes	164,581	24.6
31 minutes and over	48,204	7.2

¹Visits of zero minutes duration are those in which there was no face-to-face contact between the patient and the physician.

Symbols

- - - Data not available
- . . . Category not applicable
- Quantity zero
- 0.0 Quantity more than zero but less than 0.05
- Z Quantity more than zero but less than 500 where numbers are rounded to thousands
- * Figure does not meet standard of reliability or precision

Technical notes

Source of data and sample design

The information presented in this report is based on data collected by means of the National Ambulatory Medical Care Survey (NAMCS) from January 1991 through December 1991. The target universe of NAMCS includes office visits made in the United States by ambulatory patients to nonfederally employed physicians who are principally engaged in office practice, but not in the specialties of anesthesiology, pathology, or radiology. Telephone contacts and nonoffice visits are excluded.

A multistage probability sample design is used in NAMCS, involving samples of primary sampling units (PSU's), physician practices within PSU's, and patient visits within physician practices. The PSU's are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships (for some PSU's in New England). For 1991, a sample of 2,540 nonfederal, office-based physicians was selected from master files maintained by the American Medical Association and American Osteopathic Association. Of this group, 1,887 physicians were in scope, or eligible to participate in the survey. The physician response rate for the 1991 NAMCS was 72 percent. Sample physicians were asked to complete Patient Records (see figure 1) for a systematic random sample of office visits occurring during a randomly assigned 1-week reporting period. Responding physicians completed 33,795 patient records.

Characteristics of the physician's practice, such as primary specialty and type of practice, were obtained from the physicians during an induction interview. The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for the survey's data collection. Processing operations and medical coding were performed by the National Center for Health Statistics, Hospital Discharge and Ambulatory Care Survey Section,

Table I. Relative standard errors for estimated number of office visits: National Ambulatory Medical Care Survey, 1991

Estimated number of office visits in thousands	Relative standard error in percent
100	72.1
200	51.1
500	32.5
1,000	23.1
2,000	16.6
5,000	11.0
10,000	8.3
20,000	6.6
50,000	5.3
100,000	4.8
200,000	4.5
500,000	4.3
600,000	4.3
700,000	4.3

NOTE: The smallest reliable estimate for visits to aggregated specialties is 588,000 visits. Estimates below this figure have a relative standard error greater than 30 percent and are deemed unreliable by NCHS standards.

Example of use of table: An aggregate estimate of 50 million visits has a relative standard error of 5.3 percent or a standard error of 2,650,000 visits (5.3 percent of 50 million).

Research Triangle Park, North Carolina.

Sampling errors

The standard error is primarily a measure of the sampling variability that occurs by chance when only a sample, rather than an entire universe, is surveyed. The relative standard error of an estimate is obtained by dividing the standard error by the estimate itself; the result is then expressed as a percent of the estimate. Relative standard errors for estimated numbers of office visits in 1991 are shown in table I, relative standard errors for estimated numbers of drug mentions are presented in table II, and standard errors for estimated percents of visits are displayed in table III.

Alternatively, relative standard errors for aggregate estimates may be calculated using the following general formula, where x is the aggregate of interest in thousands, and A and B are the appropriate coefficients from table IV.

$$RSE(x) = \sqrt{A + \frac{B}{x}} \cdot 100.0$$

Similarly, relative standard errors for percents may be calculated using the following general formula, where p is the percent of interest and x is the denominator of the percent in

Table II. Relative standard errors for estimated number of drug mentions: National Ambulatory Medical Care Survey, 1991

Estimated number of drug mentions in thousands	Relative standard error in percent
100	78.1
200	68.8
500	43.7
1,000	31.2
2,000	22.4
5,000	14.8
10,000	11.2
20,000	8.9
50,000	5.8
100,000	6.5
200,000	6.1
600,000	5.8
800,000	5.8

NOTE: The smallest reliable estimate for drug mentions is 1,083,000 mentions. Estimates below this figure have a relative standard error greater than 30 percent and are deemed unreliable by NCHS standards.

Example of use of table: An aggregate estimate of 50 million drug mentions has a relative standard error of 5.8 percent or a standard error of 2,900,000 mentions (5.8 percent of 50 million).

thousands, using the appropriate coefficient from table IV.

$$RSE(p) = \sqrt{\frac{B \cdot (1-p)}{p \cdot x}} \cdot 100.0$$

Adjustments for nonresponse

Estimates from NAMCS data were adjusted to account for sample physicians who were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of response on final estimates by imputing to nonresponding physicians data from visits to similar physicians. For this purpose, physicians were judged similar if they had the same specialty designation and practiced in the same PSU.

Test of significance and rounding

In this report, the determination of statistical inference is based on the t-test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of confidence). Terms relating to differences such as "greater than" or "less than" indicate that the difference is statistically significant. A lack of comment regarding the difference between any

Table III. Standard errors for percents of estimated number of office visits: National Ambulatory Medical Care Survey, 1991

Base of percent (visits in thousands)	Estimated percent					
	1 or 99	5 or 95	10 or 90	20 or 80	30 or 70	50
	Standard error in percentage points					
100	7.2	15.7	21.6	28.8	33.0	36.0
200	5.1	11.1	15.3	20.4	23.3	25.5
500	3.2	7.0	9.7	12.9	14.8	16.1
1,000	2.3	5.0	6.8	9.1	10.4	11.4
2,000	1.6	3.5	4.8	6.4	7.4	8.1
5,000	1.0	2.2	3.1	4.1	4.7	5.1
10,000	0.7	1.6	2.2	2.9	3.3	3.6
20,000	0.5	1.1	1.5	2.0	2.3	2.6
50,000	0.3	0.7	1.0	1.3	1.5	1.6
100,000	0.2	0.5	0.7	0.9	1.0	1.1
600,000	0.1	0.2	0.3	0.4	0.4	0.5
700,000	0.1	0.2	0.3	0.3	0.4	0.4

Example of use of table: An estimate of 30 percent based on an aggregate estimate 10 million visits has a standard error of 3.3 percent or a relative standard error of 11.0 percent (3.3 percent divided by 30 percent).

Table IV. Coefficients appropriate for determining relative standard errors by type of estimate and physician groups: National Ambulatory Medical Care Survey, 1991

Type of estimate and physician group	Coefficient	
	A	B
Visits		
Overall totals	0.001744284	51.82697927
General and family practice	0.006617364	33.29640705
Internal medicine	0.01573396	45.10067385
Doctors of osteopathy, pediatrics, obstetrics and gynecology, general surgery, orthopedic surgery, cardiovascular diseases, psychiatry, urological surgery, dermatology, neurology, ophthalmology, otolaryngology	0.0163602	10.90230286
All other	0.03340709	29.631108
Drug mentions		
Overall totals	0.003224617	93.92631687
General and family practice, internal medicine	0.0122584	57.64543271
Doctors of osteopathy, general surgery, orthopedic surgery, cardiovascular diseases, urological surgery, dermatology, neurology, ophthalmology, otolaryngology, obstetrics and gynecology, pediatrics, psychiatry	0.02784109	11.55212504
All other	0.0483582	46.53697419

employed full time by an institution and spend no time seeing ambulatory patients.

Office — An office is the space that physicians identify as a location for their ambulatory practice. Offices customarily include consultation, examination, or treatment spaces that patients associate with the particular physician.

Visit — A visit is a direct personal exchange between an ambulatory patient and a physician (or a staff member working under the physician's supervision) for the purpose of seeking care and rendering personal health services.

Drug mention — A drug mention is the physician's entry of a pharmaceutical agent — by any route of administration — for prevention, diagnosis, or treatment. Generic as well as brand-name drugs are included, as are nonprescription and prescription drugs. Along with all new drugs, the physician also records continued medications if the patient was specifically instructed during the visit to continue the medication.

Drug visit — A drug visit is a visit in which medication is prescribed or provided by the physician.

two estimates does not mean that the difference was tested and found to be not significant.

In the tables, estimates of office visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percents were calculated from original unrounded figures and do not necessarily agree with percents calculated from rounded data.

Definition of terms

Ambulatory patient — An ambulatory patient is an individual

seeking personal health services who is not currently admitted to any health care institution on the premises.

Physician — A physician is a duly licensed doctor of medicine (MD) or doctor of osteopathy (DO) who is currently in office-based practice and who spends some time caring for ambulatory patients. Excluded from the NAMCS are physicians who are hospital based; who specialize in anesthesiology, pathology, or radiology; who are federally employed; who treat only institutionalized patients; or who are

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Suggested citation

Schappert SM. National Ambulatory Medical Care Survey: 1991 summary. Advance data from vital and health statistics; no 230. Hyattsville, Maryland: National Center for Health Statistics. 1993.

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DHHS Publication No. (PHS) 93-1250